

WHAT IS CLAIMED IS:

1           1.       An apparatus comprising:  
2               means for identifying a player in a supply chain, the player having one or more goals;  
3               means for identifying a decision in the supply chain, the decision having a plurality of  
4 possible actions each representing one or more other players in the supply chain and each  
5 having a payoff corresponding to each goal; and  
6               means for recommending one of the actions based on at least one of the historical  
7 behavior and commitments of the other players such that the payoffs are maximized for all  
8 players.

1           2.       The apparatus of claim 1, wherein each player is represented by at least one  
2 agent and means for identifying a player comprises:  
3               means for identifying a requesting agent representing the player.

1           3.       The apparatus of claim 2, wherein means for recommending comprises:  
2               means for identifying an action for the requesting agent, the action identifying one or  
3 more customer agents with which the requesting agent should interact.

1           4.       The apparatus of claim 3, wherein means for recommending further  
2 comprises:  
3               means for generating a decision model that describes the past behavior of competitor  
4 agents that compete with the requesting agent to interact with the customer; and  
5               means for selecting from the decision model past decisions that are relevant to the  
6 requesting agent.

1           5.       The apparatus of claim 4, wherein means for recommending further  
2 comprises:  
3               means for combining the past decisions with a model of each competitor agent,  
4 thereby producing a payoff matrix for each competitor agent, each payoff matrix associating  
5 a value with each possible combination of customer agents.

1           6.       The apparatus of claim 5, wherein means for recommending further  
2 comprises:

3           means for selecting one of the competitor agents based on a cooperation index  
4 indicating the level of past cooperation between each competitor agent and the requesting  
5 agent.

1           7.       The apparatus of claim 6, wherein means for recommending further  
2 comprises:

3           means for selecting the combination of customer agents having the highest value in  
4 the payoff matrix associated with the selected competitor agent.

1           8.       A method comprising:

2           identifying a player in a supply chain, the player having one or more goals;  
3           identifying a decision in the supply chain, the decision having a plurality of possible  
4 actions each representing one or more other players in the supply chain and each having a  
5 payoff corresponding to each goal; and  
6           recommending one of the actions based on at least one of the historical behavior and  
7 commitments of the other players such that the payoffs are maximized for all players.

1           9.       The method of claim 8, wherein each player is represented by at least one  
2 agent and identifying a player comprises:

3           identifying a requesting agent representing the player.

1           10.      The method of claim 9, wherein recommending comprises:

2           identifying an action for the requesting agent, the action identifying one or more  
3 customer agents with which the requesting agent should interact.

1           11.      The method of claim 10, wherein recommending further comprises:

2           generating a decision model that describes the past behavior of competitor agents that  
3 compete with the requesting agent to interact with the customer; and

selecting from the decision model past decisions that are relevant to the requesting agent.

12. The method of claim 11, wherein recommending further comprises:  
combining the past decisions with a model of each competitor agent, thereby  
producing a payoff matrix for each competitor agent, each payoff matrix associating a value  
with each possible combination of customer agents.

13. The method of claim 12, wherein recommending further comprises:  
selecting one of the competitor agents based on a cooperation index indicating the  
level of past cooperation between each competitor agent and the requesting agent.

14. The method of claim 13, wherein recommending further comprises:  
selecting the combination of customer agents having the highest value in the payoff  
matrix associated with the selected competitor agent.

15. A computer program product, tangibly stored on a computer-readable  
medium, comprising instructions operable to cause a programmable processor to:  
identify a player in a supply chain, the player having one or more goals;  
identify a decision in the supply chain, the decision having a plurality of possible  
actions each representing one or more other players in the supply chain and each having a  
payoff corresponding to each goal; and  
recommend one of the actions based on at least one of the historical behavior and  
commitments of the other players such that the payoffs are maximized for all players.

16. The computer program product of claim 15, wherein each player is  
represented by at least one agent and instructions operable to cause a programmable  
processor to identify a player comprise instructions operable to cause a programmable  
processor to:  
identify a requesting agent representing the player.

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1           17.     The computer program product of claim 16, wherein instructions operable to  
2     cause a programmable processor to recommend comprise instructions operable to cause a  
3     programmable processor to:

4           identify an action for the requesting agent, the action identifying one or more  
5     customer agents with which the requesting agent should interact.

1           18.     The computer program product of claim 17, wherein instructions operable to  
2     cause a programmable processor to recommend further comprise instructions operable to  
3     cause a programmable processor to:

4           generating a decision model that describes the past behavior of competitor agents that  
5     compete with the requesting agent to interact with the customer; and

6           selecting from the decision model past decisions that are relevant to the requesting  
7     agent.

1           19.     The computer program product of claim 18, wherein instructions operable to  
2     cause a programmable processor to recommend further comprise instructions operable to  
3     cause a programmable processor to:

4           combining the past decisions with a model of each competitor agent, thereby  
5     producing a payoff matrix for each competitor agent, each payoff matrix associating a value  
6     with each possible combination of customer agents.

1           20.     The computer program product of claim 19, wherein instructions operable to  
2     cause a programmable processor to recommend further comprise instructions operable to  
3     cause a programmable processor to:

4           selecting one of the competitor agents based on a cooperation index indicating the  
5     level of past cooperation between each competitor agent and the requesting agent.

1           21.     The computer program product of claim 20, wherein instructions operable to  
2     cause a programmable processor to recommend further comprise instructions operable to  
3     cause a programmable processor to:

- 4 selecting the combination of customer agents having the highest value in the payoff
- 5 matrix associated with the selected competitor agent.